

ANT
K. Antigonianus (A.)
E S S A Y

U P O N
P L A N T E R S H I P,

Humbly inscrib'd

A T T E N T I O N

To all the PLANTERS of the *British*
SUGAR-COLONIES in *America*;

The Second Edition, corrected and enlarged.

By an OLD PLANTER.

*Si quid novisti rectius istis
Candidus imperti: si non, his utere mecum.* HOR.

A N T I G U A :

Printed by T. SMITH, 1750.

ESSAYS

UPON

PLANTERSHIP

Humbly inscribed
TO THE

In Page 16, for *open* read *open*. Page 19, for *his* read *the*. Page 20, for *life* read *lose*. Page 22, for *life* read *lose*. Ibid, for *day* read *dry*. Page 23, d. also after *ij* in the note. Page 31, line 24, read a comma after *for*. Page 25, line 32, for *made* read *made*. Page 36, line 23, for *up* read *up*. Page 44, last line, for *yield* read *yields*. Page 45, line 4, for *change* read *charge*. Page 48, line 29, read *by double distillation*.

The Second Edition, corrected and enlarged.

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BY THE PLANTER.

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Caution: This is a private edition. For.



Printed by T. SMITH, 1750.

TO ALL THE
PLANTERS

OF THE
British SUGAR-COLONIES.

THIS little tract, first written for the instruction of a young planter, is now presented to the public in hopes of doing more general good, and humbly dedicated to you, Gentlemen, as to the most proper patrons, without any expectation of other reward, than that of a candid perusal. If the precepts here inculcated are consonant to plain reason, and confirmed by experience, the Proposer will think his pains amply rewarded, by promoting your interest with that of the public: if otherwise, let this be rejected, and a better scheme of planter-ship propounded for general practice. But even in that case, I shall have a right to claim the merit of being a whetstone to sharpen the ingenuity of other men, in the service of their country: or as a witty old poet expresses it much better than I can translate,

*Fungar vice cotis, acutum
Reddere quæ ferrum valet, exors ipsa secandi.*

A

The

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The Author confesses his want of accuteness to treat well a subject, which hath employed the pen of Virgil, Columella, and several other great Genii of antiquity; for, being grown old, his faculties, if ever keen, have lost much of their edge: he is indeed, passed the ambition of acquiring reputation by authorship: for, if that had been his view, he could not have paid his court to Fame in this remote corner of the world, where she never can have the power of conferring dignity, or of sounding her golden trumpet: nor would he have chosen a topic of which the meanest overseer thinks himself an admirable judge; because well aware that it is the hardest task imaginable to write with applause upon so trite a subject. This, Gentlemen, you will see he has treated with the utmost plainness, aiming much more at perspicuity, than ornament. Brilliant metaphors and other glittering embellishments are proper decorations for works of Fancy, who never charms the modern critick so much as when dress'd like a fashionable lady, in all the splendor of wit, beauty, and other finery of ribbons, laces, bugles, fringes, flounces, and flowers. But such gaiety would ill-become the gravity of that venerable matron Agriculture, whom I have the honor of introducing to your favour. Her dress must be simple and unaffected, becoming those reverend grey hairs with which old age has adorned her head: but old as she is, her aspect has more winning graces than dress and beauty can bestow; even such as virtue, temperance, and exercise usually confer upon solid sense, and mature judgment. By these charms Agriculture captivated all the renowned legislators, patriots,

trials, soldiers, orators, and poets of antiquity, who gladly devoted their hours of retirement to this admirable Instructress, and her industrious sister Experience.

In those days when Rome was in its meridian of virtue and glory, it was common to see a dictator resigning with pleasure, all the pomp of a triumph to till his little farm; as if Agriculture was the only genuine parent of ease, innocence, temperance, health, wisdom and fortitude: certain it is however, that the best plowmen were the bravest generals, and the wisest politicians of the Roman commonwealth; as if the same qualifications were equally requisite to form those very different characters. This I confess seems a paradox at first view; but upon closer examination will appear not less true of a good planter, than it was formerly of a Roman husbandman.

A liberal education is undoubtedly the principal ingredient necessary to form a good planter, who ought at least to know the rudiments of all the sciences, if he attains not the mastery of them: but to be more precise, let us take a short view of the proper qualifications of a planter in his publick and private capacity. If he is born to a large estate, or has acquired it by industry, he must expect to be a member of the legislature, and of the military order also. In the former character he must understand the whole science of good policy, founded upon the nature and ends of government in general; and in particular upon the constitution of Britain his mother country, and of the Island which he inhabits. The true interest of *that* will be promoted

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most effectually, by the institution of good Laws for the encouragement of credit and commerce, to the advantage of fair traders, and to the utter extirpation of all clandestine commerce, *that canker at the heart of civil society*; but more especially by such Laws as will effectually secure the *safety* of his Country both from within, and from without. To that end the wise policy of Barbados with respect to *Settlers*, is most worthy of imitation by the other British Sugar Colonies: for, servants, as well artificers as others, at the expiration of their servitude, are there made Landholders of three, four, or five acres, and by that means become *permanently interested* in the preservation of that Island. But the servants act of this, seemingly intended for increasing the number of our inhabitants, is nothing better than a mere *mode* of raising part of the annual tax. At Jamaica the law is much the same: but it is hard to conceive how the patriots of that Island can justify their tame acquiescence under such a fruitless law: and it is yet more wonderful that they should submit to a shameful *monopoly* * of great tracts of lands so inconsistent with all views to the populousness of a country, subject both by its great extent, and high mountains, to *intestine wars* not possible to be suppress'd by *a few*; and situated so near *two* powerful Nations; the one aiming at universal dominion, and the other peculiarly ambitious to recover

* If the Legislature of Jamaica would raise a great part of their annual tax upon *uncultivated lands*, the engroiners must be obliged to sell cheap, or suffer them to be sold by the Receiver-General under the sanction of a law, giving a good title to all buyers.

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ver an antient possession taken from them by conquest. If those Gentlemen who grudge a small portion of their lands for poor Settlers would compute how far preferable a *less possession is with certainty*, to a *greater without it*, they could not be so blind to their own real interest as to bar the door against all kinds of Settlers both rich and poor; especially when it is considered, that by an higher culture, a *less* quantity of land will yield *much more* profit, than a very large tract ill cultivated.

The true Patriot therefore will not grudge a small portion of his lands to render his country populous, as well knowing that the very existence of it depends upon the number, and good discipline of its inhabitants: for, by that means all attempts of insurrection will be prevented. It is true, that an insurrection never can be successful in these Islands, while Britain has such ample power to suppress, and take vengeance upon rebels; yet the very attempt may be the cause of much bloodshed, and the massacre of the most brave men, who are ever foremost in danger for the public defence. But a numerous body of white men interested in the soil, and well disciplined, not only stifle such rebellious machinations in the birth: but are able and ready to repel any invasion by our most powerful neighbours: and it the bulk of our people consists (as it ought to do) of Artizans, *workmanship will become cheaper*, and *they themselves grow much richer*, by having *more employment*; for, then every man who can pay, will be glad to have all the conveniences, and even the elegancies of life about him. The wise Legislator will surely consider these points very maturely, and provide

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provide timely for all the exigences of his country : for, as *precaution* is the eldest son of wisdom, by Valour ; so Heedlessness is the child of Folly, begotten by stupidity. The former guards against every future evil, and when not to be prevented, is most resolute in repelling public injuries : but the latter, ever laughing at distant dangers, is the first to fly like a coward, when they are present.

• In the capacity of a soldier the accomplished planter must be well read in the history of former wars ; and become intimately acquainted with all the famous Generals of antiquity, as to their characters, genius, discipline, stratagems, and achievements. Among the maxims of the best and wisest of them, he will find, that the *meanest Enemy is not to be despised*, and the *greatest* may be subdued by superior *Generalship* *. Instead of being inactive in times of peace, the good soldier will think it the *most proper season* for training his men without interruption to good discipline : for, by that only a small body will overcome a numerous army without it ; as Alexander's few Veterans did the innumerable hosts of Persia : for, every trained soldier well knowing and depending upon the support of his fellows, acts with confidence ; and irresistably too, by the force of the whole body united in one compact Phalanx.

As a magistrate he must be acquainted with the common forms of justice, and our statute laws. In his private character he must be an adept in figures, and

* Our justly celebrated Hero, the late duke of Marlborough proved the advantage of superior *Generalship*, by many signal victories over the armies of France, which always were more numerous, and probably as well disciplined.

and in all the arts of œconomy; something of an architect, and well skilled in mechanics; because there is in every plantation a variety of buildings and machinery, upon the right contrivance and use of which, much of the planter's success depends. He must also be an expert sugar boiler, and distiller, if he expects to make the most of his estate. It is obvious of what benefit a little physical skill will be to his sick negroes; at least enough to cure such † acute diseases as are incident to the country he inhabits; together with proper diet, and kitchen physick, which are generally most efficacious. But every planter should be more particularly a very skilful husbandman; because upon the right culture of his soil depends absolutely the *quantity*, and in a great measure the *quality* also of his produce.

It is very true, that much time and close application must be allowed for the acquisition of all these accomplishments: and every planter can afford it, when the cares of the day are over. But there still remains a more arduous task to become a real practical philosopher by the conquest, or government of all the human passions: for, if these are not under absolute subjection to right reason; how can the planter exert all the social virtues upon so many and great occasions, as must every day call them forth? Or how can he govern some hundreds of his dependents

† Acute diseases are often so sudden and violent in these climates, that all remedies come too late, before a skilful physician can be called: in pleurifies and inflammatory fevers the celebrated Dr. James's powders have effected wonderful cures, well worthy the notice of our practitioners: as the famous Dr. Ward's excellent medicines have done in chronical diseases. In many of these cases, both tar water, and lime water are of admirable use.

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dents with ease to himself, and happiness to them, without all the influences of a good example. White servants as well as negroes are the planter's dependents: and if according to the principles of humanity, the latter ought to be treated with great kindness; how much more is it due to the former, who are directors of the others labors, and stand in a nearer relation to us? Upon a generous treatment of them therefore much of the planter's prosperity will depend: for, gratitude is the strongest obligation upon honest minds to diligence, and diligence is ever most active, when it runs hand in hand with content, good humour, and chearfulness. Justice, temperance, patience, and fortitude, tho' cardinal virtues of the highest quality, must be the planter's constant familiars, ever ready to do *right* to those who suffer *wrong*; to exhibit a life of sobriety, chastity and beneficence, as a pattern to be imitated by all his family; to bear patiently the vulgar weaknesses of frail human nature; and even the perverseness of those under his charge; to suppress wickedness by suitable punishments, and to encourage goodness with generosity; and after all, to bear prosperity, or adverse events, with equanimity, and a becoming fortitude. Every social and private virtue must therefore enter into the composition of a good planter, who aspires to act his part well, on this stage of life, and to make his exit with self-approbation, and universal applause.

That every planter in general, and my own countrymen in particular, may arrive at that honor and felicity, is the principal design of this essay, and the ardent desire of Gentlemen,

Your faithful Servant,

AGRICOLA ANTEGONIANUS.

A N

ESSAY on PLANTERSHIP.

BY planterhip I understand the art of managing a sugar plantation to the best advantage ; so as to make the most of its produce, both in quantity and quality. To effect a design so comprehensive, it is necessary to understand every branch of the art precisely ; to plan every scheme with mature premeditation ; and to exercise all the arts of economy in the execution ; for, as a sugar plantation is the most expensive kind of estate ; so the net produce of it will be more or less in proportion to the managers frugality. It is therefore the duty of a good planter to inspect every part of his plantation with his own eyes ; to place his provisions, stores, and utensils in regular order, and in safe repositories ; that by preserving them in perfection all kinds of waste may be prevented.

But as negroes, cattle, mules, and horses are the *nerves* of a sugar plantation ; it is expedient to treat that subject with some accuracy ; for, the success of the whole consists chiefly in this, as in a well constructed machine, upon the energy, and right disposition of the main springs, or primary parts.

B

First,

First then, let us consider what is the right or rational method of treating negroes : For, rational Beings they are, and ought to be treated accordingly ; that is, with humanity and benevolence as our fellow creatures, created by the same Almighty hand, and under the same gracious providence, to whom the best and greatest of the human species owe their existence, and are accountable. The subordination of men to each other in society is essentially necessary to the good of the whole ; and is therefore a just reason for the benevolence of superiors to their inferiors. The meanest individual has then an equal right to civil protection with the greatest ; and to a share of what the earth produces as the natural reward of his labor. The lowest condition is not a just ground for contempt or neglect, no more than the color of a mans complexion is for uncharitableness ; and whatever Europeans may think of it, the distinction between the vulgar of the most free government, and the negroes of our colonies, is little more than *nominal* : for, he that is forced to hard labor in support of life, is as much *a slave to necessity*, as negroes are to their owners. The only difference is, that the former may chuse his master ; but it is out of his power generally to chuse a better : he that pays him a pittance for his labor does his duty, and all that he owes ; but still the daily labor proceeds, and necessity will make no abatements for sickness, or other accidental inabilities ; and the tender mercies of parish officers, like the miser's largesses, administer but little comfort to a sick man, and perhaps a numerous offspring. But negroes purchased by the British planters are redeemed from absolute slavery to

to a degree of liberty, much greater than the subjects of absolute power in Europe: for they enjoy the privilege of written laws, by which their lives and little properties are secured; and being subject only to such correction as children are to parents, or apprentices to masters, seldom receive more punishment for felonies, than criminals do in Britain for petty larcenies: for, as it is the interest of every planter to preserve his negroes in health and strength; so, every act of cruelty is not less repugnant to the master's real profit, than it is contrary to the laws of humanity; and if a manager considers his own *ease*, and his employer's interest (as he must do if an honest man) he will treat all negroes under his care with due benevolence; for, good discipline is by no means inconsistent with humanity: on the contrary, it is evident from experience, that he who feeds his negroes well, proportioneth their labour to their age, sex, and strength, and treats them with kindness and good-nature, will reap a much larger product, and with infinitely more ease and self-satisfaction, than the most cruel Egyptian task-master, who starves his negroes, or chastises them with undue severity. Every man then who wishes to grow rich with ease, must be a good economist; must feed his negroes with the most wholesome food, sufficient to preserve them in health and vigor. He must also treat them with justice and tenderness; not suffering the least injury to be done by any one to another: for, tho' a master may and ought to forgive small injuries to himself, it is not in his power consistently with justice, to forgive injuries done to another, without due compensation.

pensation. In case of sickness, the good planter will exercise in person his utmost care and tenderness in the administration of proper physick, and food, with an unsparing hand : for, to be parsimonious in such cases, is both weak and wicked. Common experience prints out the methods by which a planter may preserve his people in health and strength. Some of his most fruitful land should be allotted to each negro in proportion to his family, and a sufficient portion of time allowed for the cultivation of it ; but because such allotment cannot in long droughts produce enough for his comfortable support, it is the incumbent duty of a good planter to have always his stores well filled with Guinea corn, yams or eddas, besides potatoes growing in regular succession : for plenty begets cheerfulness of heart as well as strength of body, by which more work is effected in a day by the same hands, than in a week when enervated by want and severity. Scanty meals of New-England corn may sustain life ; but it is our own produce only which can impart athletick vigor ; and yet if the labor of producing our own provisions was fairly computed, and compar'd to the expence of purchasing that of North America, I dare affirm the latter will be found as expensive, tho' much less wholesome and nutritious. It is therefore matter of just concern, to see the cultivation of provisions so generally neglected in our colonies, where there is not wanting in any plantation some kind of soil, adapted by nature, or improvable by art, to the production of some sort of provisions. This general neglect (if my opinion may be admitted) is one great cause of our general poverty :

poverty : for, while the planter feeds his negroes scantily, or with unwholesome food, how can he expect much labor and plentiful crops ? Such expectations are vain and fruitless ! He therefore who will reap plentifully, must plant great abundance of provisions as well as sugar canes : and it is nature's economy so to fructify the soil by the growth of yams, plantains *, and potatoes, as to yield better harvests of

* Plantains are the principal support of all the negroes at Jamaica ; and are also much cultivated at a great expence of manure in Barbados. A celebrated planter and economist of that island, who raised an immense fortune from very small beginnings, solely by planting, affirmed, that he fed constantly at least 300 negroes out of twelve acres of plantains. How that excellent produce came to be so long neglected in this island, is hard to guess : but at present the neglect seems to be founded upon a vulgar error, that plantains cannot thrive in any other than low moist soils. In such places (no doubt) they flourish most luxuriantly : but yet they thrive and bear fruit abundantly on mountains, and in marshes ; and in the dryest black mold upon marl or rocks, and even in sharp gravelly soils, as may be evinced by numberless instances. Besides the advantage of having a large product of our own provision, independently of casual uncertain supplies, we may by that means prevent the monopoly of corn, and in some measure the constant drain of our current cash, which the New-England traders now carry to St. Eustatia for the purchase of French sugar, rum, molasses, and other foreign manufactures. A base, destructive trade, which (if not effectually prevented) will infallibly exalt the French islands upon the ruins of these colonies. This illicit trade is audaciously carry'd on in the face of the sun, by the most flagitious race of men : by parricides who stab their country to the heart, that they may suck their subsistence from its vital blood. Yet even these abandoned wretches have been able, with the help of thieves, pickpockets, and robbers, to cast a general odium upon the honest name of *informers*, purely to screen their wickedness from detection, and condign punishment : but whatever they may say, whose tongues are no slander, the *informers* who brings smugglers to the bar of justice, is the best friend to his country ; while those traitors to it should be scorned and despised as pyrates upon the fair trader, and as the greatest pest to civil society ; from whence they ought to be driven by the constant discouragement of every man pretending to common honesty.

of sugar by that very means, than can be produced by any other art of cultivation: so bountiful is the Creator to make that most for our interest, which is most our duty. However plenty of wholesome food may be conducive to health, there are also other means equally necessary to strength, and the longevity of negroes well worth the planter's attention; and those are, to chuse airy, dry situations for their houses; and to observe frequently that they be kept clean, in good repair, and perfectly watertight: for, nastiness, and the inclemencies of weather generate the most malignant diseases. If these houses are situated also in regular order, and at due distances, the spaces may at once prevent general devastations by fire; and furnish plenty of fruits, greens, and pot-herbs, to please an unvitiated palate, and to purify the blood.

Thus then ought every planter to treat his negroes with tenderness and generosity, that they may be induced to love and obey him out of meer gratitude; and become real good beings by the imitation of his benevolence, justice, temperance and chastity: for, nothing influences the conduct of mankind so much as the example of superiors, who are always in view: and therefore a good planter for his own ease and happiness will be careful of setting a good example. Having thus hinted the duties of a planter to his negroes, let the next care be of his cattle, mules, and horses: for these creatures are next in degree valuable to their owner. The planters of Barbados (who are perhaps the most skilful of all others, and exact to a nicety, in calculations of profit and loss) are with respect to their cattle the most remiss of any in all the

the islands : as if the carriage of canes to the mill, and of plantation-produce to the market, was not as essential as any other branch of planter-ship. At Barbados in particular, the care of these animals are of more importance, because the soil worn out by long culture, cannot yield any produce without plenty of dung. Some planters are nevertheless so ingeniously thrifty as to carry their canes upon negroes heads ; not only degrading human nature to the toil of brutes, but acting in that respect diametrically opposite to their own apparent interest, which cannot be promoted more effectually, than by saving the labor of human hands in all cases, where the labor of brutes can be substituted. To that end no means of preserving those creatures in health and strength ought to be neglected.

The first care therefore is to provide plenty and variety of food. In crop time profusion of cane tops may be had for the labor of carriage ; but will be more wholesome and nutritious if tedded like hay by the suns heat, and sweated by laying them in heaps for a few days before they are eaten. In this season of abundance, great ricks of cane tops (the butt ends being turned inwards) should be made in the most convenient corner of each field, to supply the want of pasturage, and other food : and these are very wholesome if chopped into small parts, and mixed sometimes with common salt, or sprinkled with mellosses mixed with water ; but yet the cattle require change of food to preserve them in strength, such as Guinea corn, and a variety of grass, which every soil produces with a little care in moist weather. This variety is found necessary in

in all climates; and is the hind's constant practice in England, where good husbandry is crowned with most success.

The next care of a planter is to provide *shade* for his cattle, either by trees where they are fed in the heat of the day, if his soil requires not dung; or by building a flat shade over every pen where cattle are confined for making it. That such shades are essentially necessary to the well being of all animals in hot weather, is apparent to every common observer, who cannot fail of seeing every creature forsaking the most luxuriant pastures in the heat of the day, for the sake of shade; thus convincing their owners by instinctive argument, that shade is as necessary to the well-being of the brute creatures, as food. Notwithstanding that demonstration from the unerring course of nature, I am sorry to confess, that some men shut their eyes against this animadversion, and their own interest: for, throughout all our islands (except in a very few instances) these poor creatures are exposed to the scorching sun-beams without mercy. Such inhuman neglect is not always so much the effect of inattention, as of a mistaken notion, that shades are impedimental to the making of much dung; but a flat shade covered with cane-trash, may be so made as to let rain pass thro' it, without admission of sun-beams.

If the care of providing shade for brute creatures is so much the duty and interest of their owners, how much more is it agreeable to the laws of humanity to provide shade for every human creature travelling upon the high roads in this hot climate? Nothing surely of so much beauty is so little expence as
 planting

planting coco-nut, or spreading timber-trees in avenues along the high ways, if each proprietor of the lands adjoining, hath any taste of elegance, or feeling for other men: but both those kinds of trees will yield also great profit to the proprietor by furnishing him with timber, when perhaps not otherwise to be had; or with delicious milk fitted by nature to cool the effervescence of the blood in this hot region; and also to improve our spirits made from sugar, to the delicacy and softness of arrack *. Coco-nut trees are both very beautiful and shady, bearing round heads of great expansion, upon natural trunks, or pillars of elegant proportion, and of such an height as to furnish a large shade, with a free circulation of air, equally refreshing to man and beast.

The common objection of injury to canes by the roots of such trees growing on their borders is too mean to deserve an answer: but to gratifie the muck-worm, let him dig a small trench between his canes and trees, which may intercept their roots and oblige them to seek for sustenance in the common road, and he will prevent the little expence to his purse, which he now saves from the sweat of travellers, by not planting trees. Let such a man consider, besides the benefits above suggested, he will beautify his estate to the resemblance of a most sumptuous

C

garden.

* Arrack, so called in East-India, is a spirit made of sugar like rum, with this only difference, that the sap of the coco-nut tree, called toddy, drawn off by cutting the fruit-branch, is part of the mixture to form the fermentation, and answers the end of lees, as yeast or barm.

garden. And if this whole island naturally diversified by numberless little hills and dales, were planted with avenues along all the high roads; and the summit of every barren hill crowned with clumps of trees, it would be the most magnificent garden the world could ever boast of since that of Eden: and probably that very beauty might not only render it more healthful to the inhabitants, by preserving them from fevers kindled by the burning sun-beams; but also much more fruitful, by seasonable weather: for, as by cutting down all its woods, an hot country becomes more subject to excessive droughts, so by replanting it in the manner above described, it would probably become more fruitful.

Let then the good planter be kind not only to his fellow creatures, but merciful to his beasts even for the sake of the owner; giving them plenty and variety of wholesome food, clear water, cool shade, and a clean bed; bleeding them after a long course of hard labour, currying their hides from filth and ticks, affording them salt, and other physick, such as experience prescribes; protecting them from the flogging rope lashes of a cruel driver (who needs no other instrument than a goad) proportioning their labor to their strength; and by every art rendering their work as easy as possible. The general management of planters is not perhaps more defective in any other respect, than in this: for, by pairing our cattle unequally, and by the drivers ill conduct in writhing to the right and left, the poor creatures are fatigued by needless labor. Let therefore the English husbandman be our exemplar, who trains his cattle to an even regular draught, by harnessing an horse,

horse before them, as a leader. This docile creature by being led in a strait line, will soon learn to be an unerring guide; and the cattle will follow in the same direction, with united strength; and consequently with more effect, and less fatigue to each individual.

But if the English husbandman's example be thought too expensive by the addition of an horse or mule to every team, let the practice of the Portuguese of the island of Madeira be our pattern in this respect, however ignorant and unskilful in all other mechanic arts. These people by their poverty and scantiness of pasture, breed the smallest kind of cattle; and yet one yoke of them will draw a much greater weight, than a pair of our largest oxen, solely by an equal exertion of their joint strength. That equality or evenness of draught is preserved by boring gimblet holes thro' their horns, within two inches of the points, and running a thong of leather thro' those holes, so as to tie the horns of each pair at six inches distance from each other. By this ligature the pair of cattle are absolutely hindered from writhing different ways, and draw in even direction with united force. Thus it appears evidently from reason, as well as from experience, that the labor of our beasts may by a little contrivance be rendered more easy and effectual.

Having thus treated the management of negroes and cattle as the main springs of a sugar plantation, let us now consider the various parts of planter'ship, from the first step of cultivating the soil, to the completion of his work; not minutely or systematically; for that is needless, since every young plan-

ter must learn what he sees every day in common practice, or the topic of conversation ; but my principal intention is to reform vulgar and gross errors in capital points ; and without dogmatizing, to advise some improvements in agriculture, taken from the practice of British husbandmen, who are now become the patterns of all Europe ; submitting however each precept to the correction of my experienced brethren the planters, to whom this work is dedicated, and by whom it may be improved by such useful additions or emendations, as future experience shall justify ; but as order or method contributes to perspicuity, I have chosen to divide the subsequent work into sections, under the following heads. First of the culture of various kinds of soils : secondly, the best method of cultivating sugar-canes ; thirdly, the best method of making sugar : and fourthly, of making rum.

S E C T I O N I.

Of the Culture of various Soils.

IN the British sugar colonies there is as great a variety of soils, as in any country of Europe, some naturally very rich or fruitful, yielding a luxurious product with little labor or culture. This fruitful soil is of three kinds ; a loose hazel mold mixed with sand, like that of St. Christopher's, and is the best in the known world for producing sugar in great quantity, and of the best quality. The brick mold of Jamaica is somewhat of the same nature, and next in value ; and then the various mixtures of mold and gravel,

vel, to be found in veins or plats, over all the other islands. When any of these soils are exhausted of their fertility, by long and injudicious culture, they may be restored by any kind of dung well rotted : for. these warm soils cannot bear hot unrotten dung, without being laid fallow for a considerable time after it. Another improvement is by sea-salt, or sea-weed ; or by digging in the cane-trash, and by letting it lie to rot for some months : a third method is by plowing and laying it fallow ; and the fourth method (the best of all) is by folding it with sheep. But this can be practised only where there are extensive pastures ; nor can the plow be employed where the soil abounds with large stones. In that case, however, the former method of digging in trash will be as effectual, tho' more expensive by hand-labor, or hoe-plowing.

The next best soil for producing good sugar is a mold upon clay, which if shallow, requires much culture and great labor, or its produce will be small in quantity, tho' of a strong grain and bright color, so as to yield most profit to the refiner, of any sugar except that produced from an hazel or gravelly soil as before-mentioned. All the black mold soils upon marl, are generally fruitful, will take any kind of dung ; but yield not so strong, or large grained sugar. Marl, however, of a white, yellow, or blue color, or rich mold from washes, or ashes of every kind are excellent manures for every soil, as the chief ingredient in the compost of dung ; and either will do alone for stiff clay soils : but the yellow and blue marl are the most soapy, and the richest kind of manure (except fine mold) for all stiff lands. If these
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are well opened, pulverized by culture, and mixed with dung, or any kind of loſe earth or marl, they will produce as plentifully as the richeſt ſoils : and all kinds of clay ſoils except that of a white color, have theſe two advantages above the fineſt gravelly ſoils, that they do not ſcorch ſoon by day weather, and never grow weary of the ſame manure, as moſt other ſoils do.

Deep mold upon clay being ſubject to the grub-worm, will not take any kind of dung until it be perfectly rotten, except that of the ſheep fold, which is the beſt manure for all kinds of light ſoil, and is of all others the leaſt expenſive, as not requiring hand-labor. But ſtiff clay lands where mold, marl, or ſheep dung cannot be had in plenty, may be rendered very fruitful by the plow : for by this means the ſoil is opened, and by being expoſed to the weather will molder into a fine earth. Nor let the labor of the plow as deſtructive of cattle be objected ; ſince that evil may be prevented by a ſkilful plowman, who works his beaſts regularly as before directed, and tills the land when it is in proper condition, neither too wet nor too dry ; laboring his beaſts only in the morning and evening, and allowing them plenty of food, with ſufficient reſt and ſhade in the heat of the day : for, by this management fix oxen with two horſes, plow a large tract of ſtiff land in England every ſeaſon *. But where there is plenty of
earth

* The injudicious uſe of the plow in this iſland has occaſioned a general diſlike of it : but ſurely the abuſe of any thing is no argument againſt the right uſe of it. When light plows are uſed by ſkilful holders, who never plow deeper than the ſtaple of the ſoil, the plentiful

earth or marl to make dung, stiff soils may be rendered very fruitful, by plowing in the dung immediately after it is spread, and before the sun's heat exhales its moisture. As much hand-labor is saved by extirpating every kind of weeds by the plow and harrow; so fallowing, is of incredible advantage to every soil, not only by being divided into the minutest parts, but also by imbibing those vegetative powers with which the air is impregnated by the bountiful hand of providence whenever rain falls. What those powers are we can only conjecture; nor is it material for us to know, since experience evinces this fact, that the tender vegetables of the earth are invigorated more by the smallest shower of rain, than by all the water which human art can bestow. Let it therefore be a constant maxim of the judicious planter never to plant his ground until the soil is well mellowed by fallowing, even tho' he bestows upon it a due proportion of dung: I say, a *due proportion*; for too much will force up rank canes which never yield good sugar: and tho' some advantage may be reaped from the rattoons, yet it will be found by experience not to compensate the loss by the plants; for I have known an industrious planter diminish and debase his produce, to his own disappointment, by overloading his soil with dung; which is in effect to grow poor by industry. In stony or steep soils where

ful produce of it will soon evince the advantage of the plow; besides which, by thus loosening stiff land, the labor of hoeing it is lessened by half; and also half the weeding work is also saved: for by turning all weeds under the soil with their roots upwards, they are killed more effectually than by any other method: and are not all these advantages well worthy of obtaining by the labor of the plow?

where the plow cannot be used, hand-labor, or hoe-plowing must be substituted : but even in that case, much labor may be saved by spreading the dung according to the English husbandry, and digging it into the soil. To evince this truth against the erroneous practice now in fashion, let any planter compute his negroes labor of distributing dung by baskets, and by spreading it with dung forks, and then judge for himself by one single experiment, which is the most profitable. Besides, it is evident, that by distributing the dung with baskets, the soil is much trampled under foot, and by that means the very end of hoe-plowing, or loosening the soil is much defeated. In like manner, by the present method of hoe-plowing, the same ill effect is produced : for as the negroes hoe-plow or dig the soil, *directly forward* ; so they must necessarily tread the ground as fast as they dig it : whereas by putting the laborers to dig *sideways* *, no one puts a foot upon the soil after it is dug : and by lining the land before it is hoe-plowed, each negro may have an equal share to dig. Whether hoe-plowing before or after the land be holed for canes is most eligible, experience must determine ; but certainly both operations will be most effectual ; and therefore I beg leave to advise, first to plow the soil where the land will admit the plow ; and where it will not, to hoe-plow it with or without dung as requisite ; then let it lie fallow 'till perfectly mellowed ; then hole and plant it ; and instead of weeding in the usual manner, let the weeds in all the spaces be dug into

* The only difficulty of hoe-plowing sideways is in first setting the negroes to that work : but may be done without loss of time, when working in a contiguous field.

into the soil : but as this is not to be done so well with the hoe, I submit to future experience, whether the dexterous use of spades as in England, will not answer the purpose much better, and with equal dispatch. But whatever method is preferred, most certain it is, that by loosening the soil in all the spaces between the young canes after being come up, their fibres will more easily expand on every side, and acquire more nutrition to enervate their growth. But where the planter grudges this labor, by thinking it needless in a rich loose soil, there he may dispatch more weeding work by the Dutch-hoe, than by any other ; which being fastened upon the end of a stick, is pushed forward under the roots of the small weeds in such a manner as to cut them up a little below the surface of the soil, and will do more execution at one shove, than can be done at three strokes of the common hoe ; as general practice evinces in all the gardens of England : but there is yet another practice of the horse-hoe-plow, whereby all weeds growing in rows between beans or pease, are extirpated with incredible ease and expedition, all over the county of Kent. It is a very simple machine drawn by one or two horses, consisting of a pair of low wheels turning upon a common axis ; from whence two square irons are let down at equal distances, and triangular hoes made at the ends, the points of the triangles being placed forward, and so fixed as to cut all weeds an inch beneath the surface, in the same manner as the Dutch garden-hoe above-mentioned. By this machine a man and boy with two horses or mules, will clear perfectly all the spaces of a field of ten acres in two days, and may

be of admirable use in all our loose and dry soils : for while two horses or mules draw in the space before each other, the wheels pass on the outside of each row of canes, without doing the least injury, while the plow holder attends to his business. In stiff soils I conceive neither the horse-hoe-plow, nor the Dutch hoe * can be proper ; or any instrument so effectual as the *spade* used in the manner above hinted, where the soil is suitable.

It is needless here to describe the manner of planting canes, since the general practice of allowing three feet to each row, and two or three plants to an hole, is found by common experience to be right and good ; for, this little tract is not designed as a complete system of planterfhip, but only an essay to farther improvements, and to reform the gross and common errors now in practice. For the same reason therefore little more shall be added to the subject of planting and cutting sugar canes than a few precautions. First, let all the cane-rows run east and west, that the trade wind may pass freely thro' them ; because air and sun-shine are as conducive to the growth and maturation of sugar-canes as any other vegetable. Secondly, let not any accession of mold be drawn into hills round the young canes, except where

* The Dutch-hoe is an admirable instrument for weeding lose soils, as hath been above suggested. A pattern of this cheap instrument, of a proper size for plantation use, is in the hands of Mr. Finch, ironmonger in Clement's-lane, near Lombard-street in London ; who sells good iron work of all kinds, and particularly plantation tools and utensils.

where water stagnates § ; because the fibres which run horizontally, and near the surface, are much broken and spoiled by that practice. Thirdly, let the sugar-canes be cut at their full maturity, which in dry loose soils, is generally at the end of fourteen or fifteen months after being planted ; but in cold clay soils not till sixteen or seventeen months. Fourthly, as the cane-rows run east and west in a proper direction as possible for cartage to the sugar work, so canes must be cut the contrary way, if the planter expects any great produce from his rattoons : for, by beginning to cut canes at the part of his field most remote from the works, the carts cannot often pass over the same track : and consequently the cane-stools cannot be injured : more especially if he takes due care to cut the canes very close to their roots : for, by leaving a long stub (which must perish) the cane-stools are very much injured. It may be objected to the practice of cutting canes transversely to the rows, that the negroes labor will not be so equally divided : but let every man consider both sides of the question, and be determined by his own experience ; and then he will be convinced, that it matters very little which way he cuts strait standing-canes ; but in cases where the sugar-canes lean, or are lodged by preceding high winds, it is a point of great importance to place the laborers so as to cut

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§ The stagnation of water in pools (usual in stiff level lands) is the most injurious circumstance attending it ; for that, by long duration will convert the finest mold to stiff clay. The proprietor of such a soil must therefore grudge no labor to drain it well ; and yet by such easy gradation, as to prevent the mold from being washed away by great floods.

the canes *first at the roots*, and then drawing them, cut off the tops : for thus, by two strokes each cane will be cut ; and twice the quantity cut in the same time, and by the same hands, more than by cutting in any other direction.

It is needless to suggest the expediency of planning the cane-pieces of a plantation in exact squares, so that the intervals may intersect at right angles ; since such regularity is not only more beautiful ; more safe in case of accidental fires ; and a better disposition of the whole for dividing and planting *one third or fourth part* of a plantation every year ; but also much easier guarded by a few watchmen : for, one of these walking in a line from east to west, and the other from north to south, look thro' every avenue where the most subtil thief cannot escape the watchful eye. And if the intervals surrounding the boundary of a regular plantation be made twenty-four feet wide, the proprietor will receive ample recompence for so much land, by the security of his canes from fires kindled in his neighbourhood ; and by planting all that land in plantain-trees, which may at once yield *shade* and *food* to the watchmen, who by that means can have no excuse for absence from their proper stations. But as fewel grows very scarce in most of our islands, it is also expedient to plant a *flower-fence* in all the boundaries of every plantation, which being cut every year, will furnish good store of faggots, as by its perennial growth much contention will be prevented among neighbours, by preserving exactly the old boundaries ; a point well worthy the attention of every honest man who loves his whole species, and wishes to live in amity with
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every individual of it. Our lands being thus disposed in regular order, and manured according to the nature of the soil, let us now proceed to the second head proposed.

S E C T I O N II.

Of the best Method of cultivating Sugar-canes.

IT is necessary before we enter upon this subject, to remind the reader, that the various methods of culture above suggested, require at least twelve negro men, and twelve yoke of able oxen, more than are wanted for the other uses of a large plantation : for, if so much dung, the use of the plow and fallowing, be necessary to improve the soil, these must be employed during crop-time for those purposes, under the direction of a skilful husbandman, who may teach his laborers the dexterous use of the plow, spade, and dung-fork : for, by that means two negro men will load a cart with earth or dung in less time, than ten women can do with baskets according to the present custom. Thus all the cattle-pens may be supplied by carts with plenty of earth or marl during dry seasons, and great quantities of dung made ready to be spread and plowed into the soil, when moist weather invites, without hindering the progress of the crop ; provided the mold be distributed by wheel-barrows § : thus also a great quantity of ground so prepared, may lie fallow for

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§ When carts cannot carry mold into the pens, then wheel-barrows may be substituted to save intolerable labor in the use of baskets.

a considerable time, and be fit for planting at the first of the season, which is the surest method of securing an early and plentiful crop, as every judicious planter knows by experience.

In stiff soils where canes require most age, half the quantity of land intended for the crop should be planted in June, July, August and September : but in hot loose soils in September, and October : and the whole planting season conclude with the month of January, when the tops of the first canes cut, may furnish the last pieces planted. By strict observance of this method, the canes will be at full maturity in the proper season for yielding most sugar, which is from the first of January (if the weather permits) to the last day of June. But by grinding later, we hazard not only the destruction of our wind-mills by hurricanes, but make bad sugar, at infinite expence of time and labor, both of negroes and cattle, when the juice of canes becomes weak and waterish. There is not therefore a greater error in the whole practice of planterhip than to make sugar, or to plant canes at improper seasons of the year ; for, by mismanagements of this kind every succeeding crop is put out of regular order, tho' a plantation ought to be considered as a well constructed machine, compounded of various wheels, turning different ways, and yet all contributing to the great end proposed : but if any one part runs too fast or too slow in proportion to the rest, the main purpose is defeated. It is vain to plead in excuse the want of hands or cattle ; because these wants must either be supplied, or the planter must contract his views, and proportion them to his abilities : for the attempt

attempt to do more than can be attained, will lead into perpetual disorder, and conclude in poverty. Indeed when severe droughts or unseasonable rains happen contrary to the general course of nature, the wise planter must do the best he can, chusing always the least of two evils.

The land being well manured, and mellowed by fallowing, let it be lined into spaces of three feet distance, and then holed either backwards or sideways, as the manager thinks best, taking particular care that the cane-holes be made square at the bottom ; and heaping the banks high, so as to take up little space. After holing, the land should lie in that posture until every little lump crumbles into fine mold, and then be planted before weeds spring up in any great abundance ; for, if planting in due time is neglected, the soil subsides, grows compact again, and defeats much of all the former tillage. The land being thus holed and mellowed by fallowing, let two or three good plants be placed in each hole, one plant in the centre, and one at each side of the hole : for, if many plants be put into an hole, the sprouts will rise two plentifully, so as to hinder each others growth, and produce very small spindling canes, which can yield but little sugar ; for, sugar-canes (as has been intimated) require more air and sun-shine than most other vegetables.

The plants being thus placed in each hole, with the eyes horizontally, must be covered, in loose dry soils not above two inches deep, leaving the remainder of the bank to be added by small accessions to every weeding, 'till the whole field becomes an even surface, and the young canes completely cover the

the ground : but let the common custom of drawing mold into hillocks round each stool of young canes be avoided ; because that practice breaks the young superficial fibres, and leaves them bare to perish by the scorching sun. But stiff or clay soils which are low or level, must be planted otherwise, or the plants will perish by lying under water. The holes therefore in such soils must be beded with fine mold from the banks, the plants placed upon those beds, and covered not above two inches deep, with the remainder of the banks, laying the whole field level at the time of planting, and draining it by proper outlets for the water, so as not to stagnate in any part. This method however is not recommended but in cases of absolute necessity where swampy hollow places cannot be drained. But these ought to be filled to a level with good earth or mold, and then being drained, the stiffest soils well mellowed, and furrowed by the plow at distances of *sixteen feet*, may be planted as hollow as the dryest soils to the same advantage. As such level stiff soils free from stones, are most improveable by the plow, the husbandman's chief care should be to plow the land into broad-cast-ridges, rising gradually from the sides to the centres : for, then the rain water will pass off with ease thro' the furrows, and save all the hand-labor of draining, except small trenches round each field, thro' which the water may pass gently without washing away the mold : for, where all preceding arts are practised to pulverise the soil, peculiar care must be taken to prevent its washing away by floods of rain ; or the land will soon become barren.

It has been suggested before, that three good plants are sufficient for an hole of the dimentions abovementioned. Two good plants however are sufficient, and in small holes one only is used by some judicious planters with good success. Drawn plants from ratoon-sprouts of six or eight months old, are very good; and in some respects preferable to the tops of old canes, as having short joints, and of course more eyes, and plumper than the others. It is however, generally observed, that the tops of old canes are the hardiest plants, capable of bearing the extremity of dry or wet weather, better than any other; but if the fibrous roots of drawn plants are cut off, no man will have reason to complain. He, therefore, that for the sake of tops, will reserve old canes, and grind the bottoms out of the natural season for making sugar, at the risque of destroying his windmill by hurricanes, acts as wisely as the miser, who looses a pound to save a penny. To use the tops of grown canes for the first and last pieces planted, in June and January, is very good management: but drawn plants will answer perfectly well at all other seasons of the year, and of these an abundance may be provided by a right forecast, if unseasonable droughts do not prevent: and good allowance must be made for such events. For forecast is a prime qualification of the good planter in that and all other cases. By that he divides his plantation into *three, four or five* equal parts, in proportion to his strength of hands and cattle; allowing one third, fourth, or fifth part to be planted every year: and if he contrives to cut plants always from a contiguous field, much cartage in wet weather will be prevented;

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much

much of his negroes time saved in passing from one distant field to another, and still more if mules are employed to carry plants.

But after all this care in the preceding process, sure disappointment will attend the planter who neglects timely weeding his young canes, which by once being over-run by weeds, will be so stinted as never to become very good, by any subsequent helps: let therefore every manager be as careful and nice in preserving his canes clean from all weeds, as the Florist is of his Parterre; post-poning every other work, when that calls for his labor: and if instead of scraping up these weeds with common hoes, according to the present practice, he could employ the Kentish hoe-plow, infinite hand-labor may be saved: or if the nature of his soil be stiff or stony, so that the hoe-plow cannot be used, I am persuaded that by digging all weeds into the soil with spades, and loosening it by that means as gardeners do in England, the sugar-canes would be so invigorated as to recompence the labor beyond our present conception. No devastation by that pernicious insect called the blast could then take place. All the schemes hitherto proposed for curing that evil, that fore-runner of the planter's ruin, are vain, impracticable speculations, or a waste of time and labor to little purpose: for, as human wit penetrates no deeper than the external surface of matter; so we cannot trace the influence and effects of material bodies acting upon each other, one step farther than experience, or apparent real fact is our guide. If then it be a *fact* that the blast commits most ravage in poor land, and affects not the luxuriant sugar-canes of a rich soil; the cure of that

evil

evil is certain and obvious: *manure and cultivate* your lands so as to become rich and fruitful, and you will for ever prevent the blast; more especially, if (according to the English husbandry) the produce is changed, by planting potatoes, yams, or corn in dry soils; and eddas, or plantains, in stiff lands: for, by these arts the planter may be sure (if favoured by natural seasons) of canes that will reward his labour, by plentiful crops of sugar; and it must then be his interest by skill and care to make it as good as possible, which shall be the subject of the following section.

S E C T I O N . III.

Of the best Method of making Sugar.

IN making good sugar there is a great variety of incidents, of which if any one fails, the end is absolutely frustrated; the wise planter therefore must be very attentive to every minute step throughout the whole process. It must be his first care to keep his mill in perfect good order, so that common accidents may not retard his crop in the season, when canes yield the most and best sugar: every part of his works must be very clean and his coppers hung so judiciously, as to boil perfectly well with little fuel; for, nothing contributes more to the making of good sugar, than quick boiling, after the cane-juice is well clarified. To this end therefore the great coppers, or first clarifiers, should be hung singly, or to separate fires, and pinned about ten or twelve inches from the bottom; that the scum may be se-

perated by slow degrees, and kept floating upon the surface long enough to be taken off perfectly : for, if the liquor be suffer'd to boil with violence, the scum will incorporate again with it, and never after be separable, but by the refining pan : and thus dark foul sugar is made of that cane-juice which might have produced by good management, fine bright sugar of much greater value at the market. This is a point of great importance to every planter, whose net profit depends much upon the goodness of his sugar ; for, the worst pays the same freight, duty, and charges as the very best.

The cane-juice therefore, after being strain'd at the mill thro' a large basket lined with hair-cloth, ought to run down to the boiling house in spouts lined with lead, to preserve it from tainting * ; and being let into the first clarifier, must be there boiled over a moderate fire until perfectly freed from all scum : afterwards it must be strained thro' a thick coarse blanket, and then boiled to sugar with all possible celerity. But let the coppers be ever so judiciously hung, the liquor cannot be boiled with due quickness, unless the manager takes peculiar care to provide great plenty of *dry fuel*, or mill trash : a material circumstance in which there is a most absurd and general remissness. The good planter therefore will lay up a stock of brush-wood cut from the hedges of his boundary before the crop begins ; or if he has plenty of wood, enough to serve the uses

* Mill-cisterns and all receivers through which cane-juice passes, should be lined with lead ; because wood soon taints it, and the greatest artist cannot make the best sugar from tainted juice.

of his still-house ; by which means he may soon lay up a large fund of mill-trash, and pack it either in ricks, or in a large trash-house, that the progress of his crop may not be hindered by every shower, or his sugar spoiled by dull fires.

But how can fewel be preserved from wet where there are not tight shades over the copper-holes ? and how came it to pass that these shades are taken away or suffered to decay ? Is it for fear of fire ? That indeed is prevented effectually by water-soaking the fewel with every shower : but surely this is to incur certain, constant injury, for fear of that which is accidental, and may be always prevented by common care : for, besides wetting the fewel, we destroy the health of those negroes who make fire, by exposing them to all the extremities of a burning sun, and to every little rain from the dripping eves of a Boiling-house. These are absurdities that want a name ; or have such as decency cannot use. But every passenger who observes a boiling-house without a shade, must certainly consider it as a monument of its owners folly, who either wants a good head, or a good heart, or both.

The judicious boiler's next care is to provide quick-lime of the best sort to temper his liquor ; for, otherwise the sugar will be clammy ; than which it cannot have a worse quality. That defect in sugar arises from two very different causes ; for, slow boiling, and bad temper-lime have the very same effect. The lime made from marble, flint, or any other land-lime-stones, is the strongest, and preferable to that made from white sea-coral ; and the newer it is from the kiln the better : for, by keeping it in the tightest

tightest casks for any long duration; some of its good qualities evaporate; and therefore in the daily use of it the open air must be excluded.

It is impossible to prescribe exactly the quantity of lime necessary for every sort of cane-juice. Experience only can teach this art. It is however, a good rule in general to give a full quantity, which can only be determined precisely, by the first sugar made; but by dipping a skimmer into the tach, when the liquor is boiled to near a syrup height, and by giving it two or three quick twirls, and then hanging the edges of it downwards, an observing eye will discern the liquor falling from the skimmer in glassy fleaks. If these hang long, the liquor is not sufficiently tempered; but if short, breaking close to the edge of the skimmer, it is tempered enough. When cane-juice is tainted by excessive drought, so as to make foxy, bad sugar, there are various methods in use of extracting the taint. Among these I never found any so effectual as by high tempering the liquor, and when it is boiled to a thick syrup, throw into the tach two or three gallons of fair water, which by diluting, throws up the taint, or viscous scum (which consists of the lightest particles) upon the surface, from whence it must be skimmed off with all expedition, and reserved for distillation. By this practice which I inferred from simple reason, it has been my good fortune to do signal services to some of my friends, and I dare affirm it to be a very effectual method of making strong bright sugar, from cane-juice very much tainted, provided it be rich, or at full maturity; but if the sugar-canes are much tainted while the juice is waterish, all attempts to make good su-

gar of it will be vain and fruitless: for, it is then fit only for distillation. Indeed a strong or large grained sugar cannot by any art be made from waterish juice, even tho' untainted by drought; and therefore, when the judicious planter finds his cane-juice of that sort, let him strip his canes from all the trash, suffering them to stand for two or three weeks exposed to the air and sun, and he will find that labor amply recompenced by a large product of very good sugar, as experience has often evinced.

After duly tempering the cane-juice, with the strongest quick lime, clarifying it over a slow fire, and straining it thro' a thick coarse blanket, let it be boiled with the utmost quickness to a midling sugar height, which will give it a large grain and a fair color, never-failing qualities to procure the best price at market. This art of boiling sugar, tho' of the greatest importance to every planter, is (I know not by what Infatuation) generally least understood either by overseers, or their masters; but that point of greatest consequence is trusted wholly to the skill of negro-boilers, who indeed arrive by long habit to some degree of judgment by *the eye only*. To that eye-art I have attended with all diligence, but could never acquire a critical exactness: for, the sight of all the other senses is most fallible, and subject to deception: a little more or less butter thrown into the tach will alter the whole appearance, and often deceive the most attentive and experienced eye; and no doubt there are other causes less observable, which produce the like effect; and therefore I recommend boiling by the *touch* also, which is abundantly more certain, as *two witnesses are better than one*.

To impart the knowledge of sugar-boiling by the *touch* is as impossible as to teach any other mechanic art, which can be attained by practice only : however, to convey the most adequate idea I am able, let the reader pardon the tediousness of such a dry description, and observe this art of boiling by the touch, is called by refiners *taking proof*. The method of doing it is by a pan-stick, of four feet and half long, eighteen inches of which is made rounding for the grasp of the left hand, and three feet flatwise, about two inches broad, and an inch thick : by immersing this pan-stick, into the liquor when boiled to a pretty thick consistency, it will be smeared, upon which the boiler puts his right thumb, taking up a sufficient quantity, and touching then the thumb with the fore-finger, draws the liquid sugar like a thread at the instant when the heat is going off : this thread when broken will shrink from the thumb to the suspended fore-finger, in several lengths as the boiler intends : for the different lengths at which this thread hangs to the fore-finger, determine precisely the different degrees of boiling sugar ; and these degrees are proportioned to the several sizes of molds, or sugar-pots in which it is cured. The denominations by which these degrees are determined by refiners, are, *piece*, *lump*, and *loaf-height*. *Piece-height* is the highest degree, and suited to the molds of the largest size, which contain about nine gallons : the thread of *piece-height* is about three inches long : that of *lump-height*, suitable to molds of half the former size, is when the thread stands at about an inch from the suspended fore-finger : and *loaf-height*, suitable to the smallest molds, is deter-

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mined by the thread of less than half an inch long from the suspended finger : and this *latter proof* is generally most suitable to the planter's purposes of making muscovado sugar ; which ought to be of a large grain, well separated from mellosses. It has been said above, that the boiler must take a sufficient quantity of the liquid sugar upon his thumb, to make an exact proof. That sufficiency cannot be expressed in words precisely, but must be just enough to allow the drawing of a thread, and not more ; for, that will occasion some deception. In like manner, if the thread is drawn at any other time than at the critical moment when the heat of the liquid sugar goes off the thumb, the boiler will be deceived ; for, if the liquid sugar is either too hot or too cold when drawn into a string, it will vary the appearance. In taking proof, the young learner must expect to blister his thumb, which he will think a small fine for so profitable a purchase : but to give him as little pain as possible, when he takes up the liquid sugar let him observe to keep his finger and thumb nimbly moving from and to each other in gentle contact, and then draw the string at that instant when the intense heat is going off, by which means he will save his thumb from blistering and obtain an exact *proof*, according to the rules above prescribed.

The method of boiling muscovado sugar I have said is about loaf-height, and if then it is cooled with quickness in a broad superficies and in a wooden cooler, the sugar will be of a larger grain than if cooled in a deep or copper vessel as experience evinces. But if the sugar is intended to be cured in

pots or earthen moulds, it must be cooled in copper, or deep wooden coolers, that it may be conveyed from thence into the pots, while in the state of a thick liquid. This will occasion the grain of sugar to be *smaller* (and more especially if judiciously stirred while in the cooler) which is an advantage to the color of clayed sugar: for, a multitude of surfaces will reflect more rays of light, and consequently appear *whiter* than larger particles, which have fewer surfaces. For that reason the most expert planters of Barbados generally boil their sugar higher than other people; but whether to so much profit must be determined by future experience: for, if a much less quantity of very white sugar is obtained by boiling high, than by the contrary method, the question is, whether the greater price is an adequate recompence for so great a loss of weight. In my humble opinion it is not: however, it is worth the trouble to determine that point by exact weight and measure. In such computations the refined Barbados managers exceed all our Islanders. From one of these I have seen a receipt in form more exact, than that of a good-house wife for making a pudding, but by no means equal to it in effect. That celebrated manager prescribes thus: "take so many pounds of
 " good clay and make it into a batter with so much
 " water, and then put it to so many pounds of su-
 " gar, contained in a pot of so many gallons, &c."

Can any man be the wiser for such a receipt with all the appearance of exactness? on the contrary experience testifies this plain truth, that the quantity and thinness of clay-batter must be exactly proportioned, *not to the quantity of sugar, so much as to*
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the degree of height to which it is boiled; which the *face*, or surface of the sugar in each pot must determine: for, if the crust breaks near the center, the sugar is high boiled, and will require a thinner batter; and so *vice versa*, the nearer to the edge of the pot the surface cracks, the thicker must be the clay: for, clay-batter is only the means of filtering the water thro' the sugar by easy degrees, so as to wash the grains of sugar from all yellowness, or tinge of melloffes, without dissolving the smallest particles. In this proportion therefore consists chiefly the art of claying, not to sink the pot of sugar by a double clay lower from the brim than five inches, and yet to whiten the whole mass alike to the bottom; but this cannot be effected without great judgment in boiling equally; and in seperating the pots into several classes, so as to clay each parcel in a manner suitable to the degree of boiling: for want of this art it is, that a planter may grow poorer by claying his sugar, than if he makes only plain muscovado: for the loss of sugar dissolved into melloffes by claying injudiciously, cannot be compensated by converting it into rum. He therefore who proposes to clay sugar to advantage, must first learn the art of boiling by the touch, as the only criterion of boiling to a degree of exactness: he must learn also all the other process of halling and stirring the sugar after it is filled into the pots, by which small errors in boiling may be in some measure rectified. The same skill is requisite to boil sugar which is intended to be cured in pots, *without being clayed*; and therefore that practice is very unprofitable: for, tho' sugar properly boiled will cure best in pots, yet if there be

the least error in boiling, it will occasion the sugar to be of a very small grain, as is generally the case of Jamaica sugar : for, if the same sugar which is of a small grain by being put hot into pots, had been cooled with quickness, in a broad wooden cooler, and cured in hogsheds, the grain would have been much larger, as a single experiment will evince. But if in conformity to old customs, a manager will chuse to cure in pots, let him cool his sugar in a shallow broad cooler till it becomes very thick, and only liquid enough to be taken up with a ladle, and put into the pots : for, by that means he will have a much larger grained sugar than by the present practice of putting it hot into pots. The reader will pardon the tediousness of this dry description, resulting necessarily from the nature of the subject ; and must take the pains to read, as he would undertake any other kind of labor, to promote his interest ; for the Author cannot have his own in view, by communicating to others gratis, what he learned by much labor and expence. Not however to grow more tedious by apologies, let us proceed to the fourth point proposed,

SECTION

S E C T I O N IV.

Of Distilling Rum.

THIS art not having self-evident principles for its basis, is founded solely upon experience. The nature of fermentation (which is previously necessary to making rum) can be learned only by practice, and adjusted by exact weight or measure; and even then great disappointments will happen to the distiller; either from imperceptible differences of heat and cold; or from some other latent causes not assignable. All therefore which can be done in this case, is to help the young distiller by a few general rules. As first, and principally to be very cleanly in the whole operation; for, if the mixture, or wash, should become sour by uncleanness, it never will yield a due proportion of spirit. Let the good planter therefore take particular care to cleanse his vessels, whether casks or cisterns, from all sediment every time they are used; and let them be sometimes scalded, to preserve them from all * sourness.

The Barbadians (who are the best distillers in all the sugar islands) chuse casks for that purpose; but

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* When ever the liquor of a still-house becomes sour, the shortest method is to throw it all away, and then scald the vessels: for, there is not any art yet discovered which can restore it to a capacity of yielding spirit: but roapy liquor may be restored by a large infusion of hot water.

I believe plank-cisterns set above ground (as used in England) answer the purpose as well, and are less expensive than iron-bound-butts of a conical shape ; provided those cisterns have close covers to prevent evaporation. If those critical distillers above-mentioned, could be contented with less in quantity, I presume their common rum would have a reputation proportionate to what is called their *fine spirit* : for, upon the whole it is not for the general interest of an island to make rum below the just standard of *good proof*. He therefore is the best distiller who makes most rum of a *due proof*, in * proportion to the quantity of his ingredients.

The next care of a good distiller is to have a large fund of cool, clear, and fine lees : for, if these lees (which are as yeast or barm) be either hot or foul the fermentation will be sluggish and unprofitable.

The method of preparing fine lees always ready for use, is, to have two cisterns of dimensions sufficient to hold two thousand gallons, placed out of doors, and well rammed with clay. Into each of these alternately, the hot lees may run by a spout from the still, and after standing long enough to grow cool and fine, let it be taken up clear from all sediment, and returned into a large cistern within doors, to be kept for use. But let it be strictly observed never to reserve lees of sour liquor, which yield no
rum :

* The boasters in the art of making much more rum than their neighbours, give room to suspect that they defraud the boiling house ; and so by diminishing the quantity of sugar, may easily increase the quantity of rum, which is by no means an equivalent ; and therefore all such fraud must be prevented by strict prohibition, and narrow inspection.

rum : on the contrary, let all such be thrown away as pernicious, and make new lees either by setting melloffes with fair water, or scum and water, with or without any change of melloffes ; and when that has fermented properly, so as to yield any proof rum, the distiller may depend upon these lees as good. Thus original good lees must be made at the beginning of each crop ; or at any other time when the liquor becomes sour, and fit only to be thrown away.

The general method of compounding the ingredients for making rum, is in this proportion ; which, however, may be varied as occasion requires with good effect, by a judicious distiller. One third of scum from the cane-juice, one third of water from the washing of the coppers (which ought to be washed once every twenty-four hours, if the boiler expects to make very good sugar) and one third lees, is, I say, the general proportion now in use. And when these ingredients are put together pretty cool, and well mixed, the fermentation will begin soon, and rise in twenty-four hours to a proper height for admitting the first charge of melloffes. Of this, six gallons for every hundred gallons of wash, is the general proportion to be given at twice : three *per cent.* at the first charge when the liquor is risen to an high fermentation, and the other three *per cent.* a day afterwards, or a little longer, when the wash is rich and in a high fermentation : for, if the second charge is given *after* the fermentation abates, the liquor will grow sluggish, and never yield a due proportion of rum.

When the fermentation falls by easy degrees from
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the fifth day to the sixth or seventh, so as then to grow fine, and throw up slowly a few clear beads, or air globules, it is ripe for distillation: and with these air globules will appear other symptoms discernable by the taste and smell, which cannot be described, and which experience must teach; if the observing planter is not over nice of his fingers, taste, and smell.

The liquor or wash being duly fermented and fallen, must be conveyed into the still as fine from the sediment as possible, by cocks, or wooden foffets, placed within two inches of the bottom of each vessel: for, if the sediment passes into the still, it will not only give the spirit extracted, a fætid smell and taste, but incrust the bottom of the still, and corrode the copper; to prevent therefore that last ill effect, constant care must be taken to scour often the bottoms of your stills.

The good planter's next concern must be to draw off his rum by a constant and equal fire, so as at first not to let his still spew; for preventing of which it must not be filled higher, than within eight or ten inches of the brim; and then, if the still be large, keep an equal fire sufficient to run a stream of spirit from the worm nearly as big as a man's little finger; taking particular care to keep the * worm-tub perfectly cool by a constant influx of cold clear water, let into the tub thro' a large square trunk of wood, placed perpendicularly, and the lowest end within
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* A large worm-tub bigger than usual in proportion to the worm, by containing more water will be the cooler: and if the worm be hung eighteen inches from the bottom it will be the better.

six inches of the bottom: there the cold water entering by the bottom of the trunk, may swell the hot water to overflow through a lip made at the upper edge of the worm-tub for that purpose: from thence convey it by a spout to an open reservoir out of doors, where it may cool, and be applied again to the same use, in places where water is not plenty: but where the planter is blessed with a little stream of water, it is easy so to contrive channels, as to pass it thro' his boiling-house, and still-house to the worm-tubs, without pumps, or any other kind of hand-labor: but if it has not a current to the works, he may by a cheap machine call'd a wind-mill pump, draw all the advantage without hand-labor, if he has plenty of water. This is worth the expence, since nothing conduces so much to improve the quantity and quality of rum, as keeping the worm-tubs perfectly cool; for, otherwise a great part of the spirit will evaporate, and the rum acquire a burnt disagreeable taste, not wholesome for those who drink it. The worm-tub therefore must be kept perfectly cool by a constant influx of cold water, which condensing the vapour as it passes thro' the windings of the worm, renders it a spirituous fluid; and the cooler it passes, the better will be the spirit, and the more of it. With this view to coolness I presume the general practice here of hanging stills out of doors, took its rise: but I conceive it to be a most egregious error; for in all other cases *shade* and *wind* cool every kind of liquid much sooner than wind and sun. But if there were really some little advantages of that sort, can it be a counter-balance to the inconvenience of exposing our negroes *unnecessarily*

to all the extremities of heat, cold, rain, and wind? Is this moral rectitude? And is it not equally inconsistent with every man's real interest to expose his people to all the inclemencies of the weather, subjecting them to the loss of health and life; his rum to waste in windy weather, and to thefts at all seasons?

The stream of spirit running from the worm (I have said) ought to be near as big as a man's little finger; because I have learned from repeated experiments, that if that stream is varied to the bigness of a straw by an unequal fire, the spirit will become weak; but raise it again to the former standard, and it will become a proof spirit; provided the tub be very cool. Whether the best method of distilling low-wines is by returning them into the subsequent still of liquor, or by drawing them off seperately, experience must determine. The first method will certainly produce a cooler spirit, more palatable and wholesome; but the latter seems more profitable for the London market, because the buyers there approve of a fiery spirit which will bear most adulteration; and certain it is, that the oftner a spirit is distilled, the more fiery it will be. This is evidently the ground of preferring Jamaica rum to all other, not only because it is of a much higher proof, but also more hot, and capable therefore of more adulteration: but it may be doubted whether the Jamaica planter does not loose more double distillation and over-proof, than he gains by the price at London. If that be a fact (as experiment may soon determine) it will be for his profit, to draw more proof rum from the wash, and a less quantity of low
wines,

wines, as expert distillers do in Barbados : but most certainly the spirit drawn from the wash is more cool, palatable, and wholesome, than that extracted from low wines by double distillation. However, not to impose by private opinion upon the candid planter, both methods are proposed, that he may chuse from experience that which is best : and when he arrives at skill enough to produce *two* hundred gallons of good proof-rum for *three* hogsheads of sugar ; he will arrive to the highest degree of perfection, I ever attained. But this he can never attain without the utmost care and regularity : for, he must contrive to set his cisterns of wash, as to ferment in due time, and become ripe for distillation in regular succession every morning, that his negroes may do the work of the day between sun-rising and sun-setting ; for, nothing is more unprofitable, and dangerous too, than distilling at night. It is true, that such a regular progress requires much care and contrivance, a roomly still-house, and large stills at a great expence : but yet, every good œconomist will soon find by experience, that the first charge of a compleat well contrived sugar work, large enough to take off his crop in due time, without boiling after ten of the clock at night, or distilling after sunset, will amply recompence all the expence, by the quantity and good quality of his rum and sugar ; as by giving his negroes a due portion of rest, they will continue strong, chearful and vigorous to transact the succeeding labor of the day, with ease to them, and happiness to himself.

F I N I S.

